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OPTICS CAPABILITY

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This company appears to have a good capability in optics design and development. [redacted] and I visited them on Wednesday, June 24. I had previously visited them in May. They are a small company of about 22 people. All the senior technical staff members have either a Ph.D. or M.S. degree. They have a computer for design work, a grinding and polishing shop, and a test and assembly area.

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We had an extensive technical discussion on current problems of microscopes and light tables, and we also toured their facility.

I had previously left a copy of the Development Objective for "An Advanced Tilt Top Light Table" with [redacted]. The development objective calls for 1500 to 1800 ft. Lamberts at the illumination surface. For high magnification microscope viewing even that may not be enough light, while for general purpose viewing the present tables are probably bright enough.

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After exploring ideas for slaving a small intense spot of light to the microscope, two interesting suggestions were made by [redacted]

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1. Illuminate the material by reflected light from a lamp attached to the microscope. The lamp would reflect from a mirror disk under the clear glass top of the light table. The mirror disk to be slaved to the microscope by a small magnet. The feasibility could easily be tested in [redacted] Lab by putting some material on a rear surface mirror and illuminating it.

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What about the attenuation by the film image?

True, attenuation by a film image is a fact. It is hoped that additional electronically induced attenuation may make the info. even more readable.

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2. The diffuser in present light tables could probably be redesigned to provide more directional screen gain and, hence, increase the brightness to the eye by a factor of two or more. [] could test this out with some pola cote material.

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We gave [] a copy of the Development Objective for a "Binocular Tube Magnifier" dated 14 April 1964. Some of the optical requirements were discussed and [] noted that probably the most important thing in a tube magnifier was a wide field of view. [] was advised this was a competitive bid. If they can devise something unique, they will submit a bid by July 15.

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The requirement for a variable ratio anamorphic eyepiece for a standard microscope or stereoscope was discussed. [] immediately recognized the severity of the problems involved. Since [] concept was being implemented, there was no point in [] contacting him.

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